E. coli Criteria/Risk Level

EPA has approved risk levels of 8 illnesses/1000 or 10/1000 "swimmers" as appropriate for Primary Contact Recreation use designation. The workgroup has suggested/agreed that IDEM should propose that criteria corresponding to these risk levels be incorporated into Indiana's water quality standards as appropriate for primary contact recreational use waters. Questions arose as to what would be the "default" risk level for Indiana's primary contact waters, what waters would be placed in one category or the other, and how would waters be moved from one category to the other. The following are some thoughts for discussion on these questions:

Default category would be risk level of 10 illnesses/1000:

Exceptions:

- All lakes greater than 5(?) acres or any that had established beach areas/campgrounds would be 8 illness rate by default
- Tributaries to these lakes for a distance of 10 (?) miles upstream would be default 8 illness rate to protect downstream uses. Another option would be to include all streams within the 8 digit Hydrologic Unit Code.
- Sites on waters where known primary contact recreation is frequent occurrence (St. Joseph River at South Bend, others identified) and for a distance of 10 (?) miles upstream of the primary contact recreation sites would be 8 illness rate (to protect site).
- Interstate waters where they form boundaries between states if boundary state has 8 illness risk level criteria.

Pros:

- Probably no change in treatment requirements for dischargers.
- Proposals from entities wishing to change risk levels from 10 to 8 for specific waters could be rather simple requests as water quality would not be reduced (minimally enhanced) by requested change.
- Protection of downstream uses not an issue because changes are from less stringent to more stringent.
- May reduce number of water bodies on TMDL list for *E. coli* by small amount (about 15%?)

Cons:

- Water quality requirements may be minimally reduced from current status for many waters (probably more of a perceived/theoretical reduction than actual reduction as most dischargers will need to maintain current operating procedures).
- Risk of illness from swimming in these waters will be minimally higher (at least perceived/theoretical higher risk).
- Selecting the distance to extend the lower criterion into the tributaries of the Lake selected for an 8 illness rate might be problematic. If the 10 (?) mile range is insufficient, the water body would become impaired for *E. coli*.
- Backsliding issues for those permittees with *E.coli* limits based on current standards**?**

Default category would be risk level of 8 illnesses/1000:

Exceptions: None—Those types of waters listed above as exceptions under 10 illness risk level would not be eligible for moving from 8 to 10 risk level under this default category scenario.

Pros:

- No change in water quality requirements from current status for most waters.
- No change in treatment requirements for most dischargers.
- Risk levels for swimmers in most waters would not change from current risk.

Cons:

- Probably no change in TMDL lists in most cases.
- Requests to change from risk level 8 to risk level 10 might need to involve more complex justifications as change would be from more stringent to less stringent.
- Protection of downstream more stringent uses becomes an issue that needs to be addressed in requests to move individual water or reach of a water from 8 to 10 illness rate.

Process

This process would be a rulemaking

Submission Requirements

- Justification/Rationale for changing the risk level
- Petition should be from County Board of Health/County Commissioners?
- Verification of communication with downstream entities
- Testimony from at least one public hearing
- Map of the areas including land use and zoning (if applicable)
- Others?